

# Cubic Loading

The Cubic Loading component is a visually engaging loading indicator featuring rotating 3D cube animations. It provides smooth transitions, customizable background colors, and works seamlessly across light and dark themes.

This component is ideal for use during data fetching, route transitions, or asynchronous operations where a visual loading state enhances user experience.

The `<aava-cubical-loading>` component supports multiple color modes—solid, gradient, and custom hex values —making it adaptable to your design system.

## How to use

### Basic Usage

```
import { AavaCubicalLoadingComponent } from "@aava/play-core";
```

The basic example demonstrates the default appearance of the `<aava-cubical-loading>` component. It uses a solid background and simple cube animation, ideal for displaying lightweight loaders or placeholders in dashboards or content-heavy screens.

### Solid Colours

```
&lt;/aava-cubical-loading&gt;&lt;/aava-cubical-loading&gt;
```

Use solid colour backgrounds to maintain a minimal, clean visual style. This is useful in neutral or brand-themed UI layouts where the loading indicator should blend seamlessly without distracting from nearby content.

### Gradient Backgrounds

```
&lt;aava-cubical-loading background="blue"&gt;&lt;/aava-cubical-loading&gt;  
&lt;aava-cubical-loading background="red"&gt;&lt;/aava-cubical-loading&gt;  
&lt;aava-cubical-loading background="green"&gt;&lt;/aava-cubical-loading&gt;
```

The gradient background version enhances visual appeal with smooth colour transitions. Ideal for modern UIs, splash screens, or components that need a more dynamic, polished loading state.

# Custom Hex Colors

```
&lt;aava-cubical-loading  
background="linear-gradient(45deg, #667eea 0%, #764ba2 100%)"  
&gt;&lt;/aava-cubical-loading&gt;  
  
&lt;aava-cubical-loading  
background="linear-gradient(45deg, #f093fb 0%, #f5576c 100%)"  
&gt;&lt;/aava-cubical-loading&gt;  
  
&lt;aava-cubical-loading  
background="linear-gradient(45deg, #4facfe 0%, #00f2fe 100%)"  
&gt;&lt;/aava-cubical-loading&gt;
```

You can fully customize the loading background using custom hex codes to match your design system or brand palette. This provides complete control over the component's appearance and helps maintain visual consistency across products.

## API Reference

### Input Properties

Property	Type	Default	Description
background	string	'black'	Sets the background color of the cubical loading component.

## Best Practices

### Content & Design

- Use solid or gradient backgrounds that contrast well with the cube color for better visibility.
- Prefer neutral tones (e.g., black, white, gray) in minimal UIs to maintain focus on the loader.
- If used on branded pages, apply custom hex codes that align with the product's color scheme.
- Maintain sufficient space around the loader (padding or center alignment) for aesthetic balance

## Accessibility

- The loader is purely visual and does not capture keyboard or screen reader focus.
- Should be paired with ARIA live regions or loading messages if used during content fetches.
- Use aria-busy="true" on parent containers to indicate loading states for assistive technologies.
- Ensure that color choices meet contrast guidelines if the loader includes text or overlays.

## Performance

- The component uses CSS-based animations only — no JavaScript-driven transitions, ensuring optimal rendering performance.
- Lightweight and GPU-accelerated for smooth animations, even on low-end devices.
- Safe to use across multiple instances on a single page.
- Minimal change detection overhead (ideal for OnPush strategies).